

IN THE CLAIMS:

1. (Currently Amended) A method of making a formed, dried lignocellulose fiber material, said method comprising consisting essentially of:
  - (a) providing an aqueous lignocellulose fiber pulp slurry having an effective consistency;
  - (b) de-watering said slurry comprising by applying a compression pressure to provide a de-watered material at an effective de-watering rate under an effective pressure to prevent or reduce the formation of fissures and voids within said material; and
  - (c) drying an effective amount of said de-watered material at an effective temperature and period of time to provide said formed, dried lignocellulose fiber material of a shape having a thickness of at least 5mm.
2. (Original) A method of making a formed, dried lignocellulose fiber material as defined in claim 1 wherein said formed, dried lignocellulose fiber material is minimally flawed.
3. (Original) A method as defined in claim 2 wherein said formed, dried lignocellulose fiber material is essentially fissure-free.
4. (Original) A method as defined in claim 1 wherein said lignocellulose fiber material has an average fiber length of less than 1.0cm.
5. (Original) A method as defined in claim 4 wherein said lignocellulose fiber material is a hardwood and said average fiber length is selected from about 0.5-1.0mm.
6. (Original) A method as defined in claim 4 wherein said lignocellulose fiber material is a softwood and said average fiber length is selected from about 1.0-4.0mm.
7. (Original) A method as defined in claim 4 wherein said lignocellulose fiber

material is non-wood and said average fiber length is selected from about 0.5-10mm.

8. (Original) A method as defined in claim 1 wherein said aqueous lignocellulose fiber pulp slurry of step (a) has a fiber consistency of between 0.1 – 10% W/W.

9. (Original) A method as defined in claim 1 wherein said de-watered material produced by step (b) has a dry bulk density of between 0.1 – 0.9 g/cm<sup>3</sup>.

10. (Previously Presented) A method as defined in claim 1 wherein said de-watering step (b) is carried out to produce said de-watered material of a suitable form.

11. (Original) A method as defined in claim 9 wherein said form is of a shape having a thickness of at least 2 cm.

12. (Cancelled)

13. (Currently Amended) A method as defined in claim 1 wherein said compression means exerts a compression pressure of is about 10-100 psi.

14. (Original) A method as defined in claim 1 wherein said lignocellulose fiber pulp is selected from the group consisting of bleached, unbleached, dried, undried, refined, unrefined, kraft, sulfite, mechanical, recycled and virgin wood and non-wood fiber pulps.

15. (Currently Amended) A method as defined in claim 1 wherein said drying step (c) comprises consists essentially of air drying.

16. (Original) A method as defined in claim 1 wherein said drying step (c) is carried out at a temperature and over a period of time to remove water to produce said de-watered material having a water content of no more than 5% W/W water.

17. (Original) A method as defined in claim 16 wherein said drying step (c) is carried

out at a temperature and over a period of time to remove water to produce said de-watered material having a water content of no more than 3% W/W.

18. (Currently Amended) A method of making a lignocellulose fiber-resin composite material comprising the steps defined in claim 1 and further comprising consisting essentially of the steps of

(d) impregnating said dried formed fiber material with a liquid thermoset resin under an effective pressure for an effective period of time to effect impregnation of said resin in said dried formed fiber material at a desired rate and to a desired degree to produce a resin-treated material; and

(e) curing said resin in said resin-treated material to produce said composite material.

19. (Original) A method as defined in claim 18 wherein said impregnation step (d) is carried out at a temperature of 5 – 25°C.

20. (Currently Amended) A method as defined in claim 18 further comprising consisting essentially of form-pressing said resin-treated material prior to curing step (e).

21. (Currently Amended) A method as defined in claim 20 wherein said form-pressing step comprising consisting essentially of extruding said material or sandwiching said material.

22. (Original) A method as defined in claim 18 wherein said curing step (e) is initially carried out at an effective temperature of below about 100°C.

23. (Original) A formed, dried lignocellulose fiber material when made by a process as defined in claim 1.

24. (Original) A formed dried lignocellulose fiber material as defined in claim 23,

which is essentially fissure-free.

25. (Original) A formed, lignocellulose fiber-resin composite material when made by a process as defined in claim 18.

26. (Original) A formed lignocellulose fiber composite material as defined in claim 25, which is essentially fissure-free.

27. (New) A method of making a structural member, the method consisting essentially of:

providing an aqueous lignocellulose fiber pulp slurry having a consistency that avoids clumping of fibers, the fibers having an average length of about less than 1.0 cm;

mixing the slurry to randomize a direction of the fibers;

de-watering the slurry by applying a compression pressure to provide a de-watered material at a de-watering rate and pressure such that at least 90% of the surface area is free-of fissures and voids; and

drying the de-watered material at a temperature and period of time to provide a formed, dried structural member having a thickness of at least 5 mm which has a strength to weight ratio greater than carbon steel such that the structural member retains its shape at loads which deform carbon steel having a same weight and footprint as the structural member.

28. (New) A method according to claim 27, wherein the dried structural member has a thickness of at least 2 cm.

29. (New) A method according to claim 27, further consisting essentially of the steps of

impregnating the dried formed fiber material with a liquid thermoset resin under an effective pressure for an effective period of time to effect impregnation of said resin in said dried formed fiber material at a desired rate and to a desired degree to produce a resin-treated material; and

curing said resin in said resin-treated material to produce said composite material.

30. (New) A method as defined in claim 27, wherein said impregnation step (d) is carried out at a temperature of 5 – 25°C.

31. (New) A method as defined in claim 27, further consisting essentially of form-pressing said resin-treated material prior to curing.

32. (New) A method as defined in claim 31, wherein said form-pressing step consisting essentially of extruding said material or sandwiching said material.

33. (New) A method as defined in claim 27, wherein said curing is initially carried out at an effective temperature of below about 100°C.

34. (New) A method as defined in claim 27, wherein said aqueous lignocellulose fiber pulp slurry has a fiber consistency of between 0.1 – 10% W/W.

35. (New) A method as defined in claim 27, wherein said de-watered material has a dry bulk density of between 0.1 – 0.9 g/cm<sup>3</sup>.

36. (New) A formed, dried lignocellulose fiber material made by a process as defined in claim 27.

37. (New) A formed dried lignocellulose fiber material as defined in claim 36, which is essentially fissure-free.

38. (New) A formed, lignocellulose fiber-resin composite material made by a process as defined in claim 29.